KUROCHKIN, N.Ye.

Five variable stars in Gemini. Per.zvezdy 12 no.6:418-421
Je '59.   (MIRA 13:9)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.
Shternberga, Moskva.
              (Stars, Variable)

KUROCHKIN, N.Ye.

    Nova-type star LW Cassiopeiae. Astron. tsir. no.199:18-19 Ja '59.
                                     (MIRA 13:2)

    1.Gosusarstvennyy astronomicheskiy institut im. P.K. Shternberga,
    Moskva.
             (Stars, New)

KUROCHKIN, N.

Variable stars in outer regions of M3 cluster. Astron.tsir. no.205:
14-16 0 '59.   (MIRA 13:6)

1. Gosudarstvennyy astronomicheskiy institut im. Shternberga, Moskva.
                    (Stars, Variable)

BAKULIN, P.I., otv.red.; DAGAYEV, M.M., red.; KULAGIN, S.G., red.;
     KUROCHKIN, N.Ye., red.; MASEVICH, A.G., red.; RAKHLIN, I.Ye.,
     red.; AKHLAMOV, S.N., tekhn.red.

[Astronomical calendar. Yearbook. Varying part, 1961] Astrono-
micheskii kalendar'. Ezhogodnik. Peremennaia chast', 1961.
Red.kollegiia: P.I.Bakulin i dr. Moskva, Gos.izd-vo fiziko-matem.
lit-ry, 1960. 330 p. (Vsesoiuznoe astronomo-geodezicheskoe
obshchestvo, no.64).   (MIRA 14:1)

1. Moskovskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo
obshchestva (for Dagayev, Kurochkin).
          (Astronomy--Yearbooks)

22085

S/035/61/000/003/011/045
A001/A101

3./420

AUTHOR: Kurochkin, N.Ye.

TITLE: New variable stars in the region SA 57

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 3, 1961, 24, abstract 3A249 ("Peremennyye zvezdy", 1960, v. 12, no. 6, 409 - 417, English summary)

TEXT: Ten new variables were discovered by the author on photographs 10 x x 10° with the center in SA 57 (13^h04^m - $30°$, 1900). Five of them are definitely RR Lyr stars; elements and luminosity curves are given for them. The star which was preliminarily designated as СПЗ (SPZ) 125,4 belongs to stars of the U Gem type or Nova-like. Observational data are presented.

N. K.

[Abstracter's note: Complete translation]

Card 1/1

S/035/61/000/003/010/048
A001/A101

AUTHOR: Kurochkin, N.Ye.

TITLE: On five variable stars in constellation Gemini

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 3, 1961. 24, ab-
              stract 3A246 ("Peremennyye zvezdy", 1960, v. 12, no. 6, 418 - 421,
              English summary)

/c

TEXT: The results and data of observations of five variable stars in the
Gemini constellation are presented. Luminosities are estimated from the photo-
graphs of the Moscow Observatory. A possible period (about 330^d) is mentioned for
the star AW Gem of the U Gem type.

[Abstracter's note: Complete translation]

Card 1/1

KUROCHKIN, N.Ye.

New variable stars in the remote vicinity of M3 cluster. Per.
zvezdy 13 no.2:84-100 N '60.   (MIRA 14:10)

1. Gosudarstvennyy astronomichoskiy institut imeni P.K.Shternberga.
                          (Stars, Variable)

KUROCHKIN, N.Ye.

On O.Struve's article "Motion of RR Lyrae-type stars." Per.zvezdy
13 no.2:122-124 N '60.   (MIRA 14:10)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga.
(Stars, Variable)

3.1560   73014
                                                SOV/33-37-1-14/31

AUTHOR: Kurochkin, N. Ye.

TITLE: Light Variation Amplitudes and the Applicability of a
               Black Body Model for the Study or Cepheids

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol 37, Nr 1, pp 101-110
               (USSR)

ABSTRACT: In his previous paper (same journal, Vol 36, p 695, 1959)
               the author studied the dependence between the variation
               of brightness and the variation of radial velocity of
               pulsating variables. The same problem has been investi-
               gated by several other authors. In this paper the
               dependence of amplitude of brightness variation on the
               variation of the temperature is investigated. The adopted
               scale of effective temperatures for giants from B0 to
               K0 is essentially that derived by Kuiper. The dependence
               of the light amplitude Δm on temperature T is written
               as:

Card 1/4 $\Delta m = ax + b$, where $x = \Delta T/T$.

Light Variation Amplitudes and the   78014
Applicability of a Black Body Model   SOV/33-37-1-14/31
for the Study or Cepheids

Then for 30 stars of δ Ceph type the author obtains:

$$\Delta m = 5.040x + 0.158$$
$$\pm 0.430 \pm 0.091 \tag{1}$$

Similarly, the variation of the radial velocity is
written as:

$$\Delta V = 37.68 \; \Delta m - 4.14$$
$$\pm 3.18 \qquad \pm 0.61 \tag{2}$$

Combining (1) and (2) the author has:

$$\Delta V = 189.9x + 1.81$$
$$\pm 22.8 \pm 3.48 \tag{3}$$

Card 2/4

Similar relations are derived for RR Lyrae variables.
If the radiation of pulsating stars follows the law

Light Variation Amplitudes and the   73014
Applicability of a Black Body Model   SOV/33-37-1-14/31

of black body, then according to Aller we should
have:

$$\Delta m = -2.17 \, \Delta R/R - (36,700/T)\Delta T/T \quad (8)$$

where R is the radius of the star. Using sinusoidal
curve for radial velocities, the author obtains from
Eq. (1) and (2) the relation:

$$\Delta m = -2.17 \, \Delta R/R + 7.04x + 0.18 \, (\delta \text{Ceph}) \quad (13)$$
$$\pm 0.60 \pm 0.15$$

A comparison of (8) and (13) leads to the conclusion
that the linear relations (Δm, $\Delta T/T$) and (Δm,
ΔV) are explained by the assumption that in the
first approximation Cepheids radiate as black bodies.
The same holds for RR Lyrae variables. This allows a
determination of the radii and absolute magnitudes of
these stars by methods of absolute photometry, and will
Card 3/4   open new ways of determining exact distances in the

Light Variation Amplitudes and the   78014
Applicability of a Black Body Model   SOV/33-37-1-14/31

universe independent of measures of the distances of
nearby stars. There are 10 figures; and 24 references,
7 Soviet, 1 Norwegian, 2 Dutch, 1 German, 13 U.S. The
five recent U.S. references are: O. J. Eggen, Astrophys.
J., 113, 367 (1951); H. A. Abt, Publ. Astron. Soc.
Pacif., 66, 65 (1954); M. Roberts, A. Sandage, Astron.
J., 60, 185 (1955); J. Stebbins, Publ. Astron. Soc. of
Pacif., 65, 118 (1953); O. C. Wilson, M. F. Walker,
Astroph. J., 124, 325 (1956).

ASSOCIATION: Sternberg State Astronomical Institute (Gosudarstvennyy
               astronomicheskiy in-t imeni P. K. Shternberga)

SUBMITTED: July 9, 1959

Card 4/4

KUROCHKIN, N.Ye.

Positions of the minor planet Modestia.370. Astron.tsir. no.210:
8-9 Ap '60.   (MIRA 13:9)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga, Moskva.
                        (Planets, Minor)

KUROCHKIN, N.Ye.

New variable star with a supershort peroid. Astron.tsir. no.210:
25-26 Ap '60.   (MIRA 13:9)

1. Gosudarstvennyy astronomicheskiy institut im.P.K.Shternberga.
                          (Stars, Variable)

KUROCHKIN, N.Ye.

Variable stars in the region of M67. Astron.tsir. no.212:9-11 Je
'60.
(MIRA 13:10)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga,
Moskva.

(Stars, Variable)

KULAGIN, S.G.; KOVBASYUK, L.D.; DAGAYEV, M.M.; LAZAREVSKIY, V.S.;
    DEMIDOVICH, Ye.G.; BRONSHTEN, V.A.; YAKHONTOVA, N.S.(Leningrad);
    KUROCHKIN, N.Ya.; DOKUCHAYEVA, O.D.; SHCHERBINA-SAMOYLOVA, I.S.;
    MASEVICH, A.G.; LIPSKIY, Yu.N.; MARTYNOV, D.Ya.; ARSENT'YEV, V.V.;
    MOROZ, V.I.; MASEVICH, A.G.; PEREL', Yu.G.; BAKULIN, P.I., otv.
    red.; KULIKOV, G.S., red.; AKHLAMOV, S.N., tekhn. red.

[Astronomical calendar; yearbook.Variable part, 1962] Astrono-
micheskii kalendar'; ezhegodnik. Peremennaia chast', 1962. Red.
kollegiia: P.I.Bakulin i dr. Moskva, Gos.izd-vo fiziko-matem.
lit-ry, 1961. 259 p. (Vsesoiuznoe astronomo-geodezicheskoe ob-
shchestvo, no.65)   (MIRA 14:12)

1. Gosudarstvennoye astronomo-geodezicheskoye obshchestvo (for
Kalugin, Kovbasyuk, Lazarevskiy, Demidovich). 2. Moskovskoye ot-
deleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva (for
Dagayev, Bronshten, Kurochkin).
                    (Astronomy—Yearbooks)

KUROCHKIN, N.Ye.

RR Lyrae-type stars in the distant vicinities of globular
clusters. Per.zvezdy 13 no.4:248-254 Mr '61.   (MIRA 15:3)

1. Gosudarstvennyy Astronomicheskiy institut imeni Shternberga, Mozkva.
(Stars, Variable)

KUROCHKIN, N.Ye.

New variable stars at high galactic latitudes. Per.zvezdy 13
no.5:331-339 Je '61.   (MIRA 15:8)

1. Gosudarstvennyy astronomicheskiy institut im. Shternberga.
                         (Stars, Variable)

KULIKOVSKIY, P.G.; KUROCHKIN, N.Ye.; STARIKOVA, G.A.

First results of measurements of binary stars with the SPM-1
polarization micrometer. Astron.zhur. 38 no.4:762-767 Jl-Ag
'61.   (MIRA 14:8)

1. Gosudarstvennyy astronomicheskiy institut in. P.K.
Shternberga.
          (Stars, Double) (Micrometer)

KUROCHKIN, N.Ye.

Investigating the vicinity of globular cluster M3. Astron.tsir.
no.219:26-30 Mr '61.   (MIRA 14:10)

1. Gosudarstvennyy astronomicheskiy institut im. Shternberga,
Moskva.
                        (Stars—Clusters)

KIRICCHIIN, N.Ye.

Comparison stars and charts of the vicinities for variables in
N 67. Astron.tsir. no.220:16-18 Ap '61.   (MIRA 14:10)

1. Gosudarstvennyy astronomicheskiy institut im. Shternberga.
(Stars, Variable)

BAKULIN, P.I., otv. red.; DAGAYEV, M.M., red.; KULAGIN, S.G., red.;
KUROCHKIN, N.Ye., red.; MASEVICH, A.G., red.; RAKHLIN, I.Ye.,
red.; BRUDNO, K.F., tekhn. red.

[Astronomical calendar. Yearbook for 1963. Varying part]
Astronomicheskii kalendar'. Ezhegodnik. Peremennaia chast',
1963. Red. kollegiia: P.I.Bakulin i dr. Moskva, Fizmatgiz,
1962. 287 p. (Vsesoiuznoe astronomo-geodezicheskoe obshchestvo,
no.66)   (Astronomy—Yearbooks)   (MIRA 15:12)

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ASTAFOVICH,I.S.; BAKULI ,P.I.; BALHA EV,A.N.; BRONSHTEN.V.A.; IUGOSLAVSKAYA,
N.Ya.[deceased]; VASIL'YEV,O.B.; GRISHIN,N.I.; DAGAYEV, M.M.;
DUBROVSKIY,K.K.[deceased]; ZAKHA OV,G.P.; ZOTKIN,I.T.; KE TER,Ye.N.;
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ORLOV,S.V.[deceased]; POPOV,P.I.; PUSHKOV, N.V.;
RYBAKOV, A.I.; RYABOV,Yu.A.; SYTINSKAYA, N.N.; TSESEVICH, V.P.;
SHCHIGOLEV,B.M.; VORONTSOV-VEL'YAMINOV,B.A.,red.; POLGAIEVA,G.A.,
red.; KRYUCHKOVA, V.N., tekhn. red.

[Astronomical calender; permanent part] Astronomicheskii kalendar';
postoiannaia chast'. Izd.5., polnost'iu perer. Otv. red. P.I.Bakulin.
Red.kol.V.A.Bronshten i dr. Moskva, Gos.izd-vo fiziko-matem.lit-ry,
1962. 771 p.   (MIRA 15:4)

(Astronomy—Yearbooks)

KUROCHKIN, N.Ye.; STARIKOVA, G.A.

Measurements of double stars with a polarization micrometer.
Soob. GAISH no.124:28-30 '62.   (MIRA 16:7)

(Stars, Double)

KUROCHKIN, Nikolay Yefimovich; TSESEVICH, V.P., otv. red.;
BRONSHTEN, V.A., red.

[Instruction for the observation of variable stars] In-
struktsiia dlia nabliudeniia peremennykh zvezd. Moskva,
Izd-vo Akad. nauk SSSR, 1963. 36 p.   (MIRA 16:5)

1. Chlen-korrespondent Akademii nauk Ukr.SSR (for TSesevich).
(Stars, Variable)

BAKULIN, P.I., otv. red.; DAGAYEV, M.M., red.; KULAGIN, S.G.,
red.; KUROCHKIN, N.Ye., red.; MASEVICH, A.G., red.;
RAKHLIN, I.Ye., red.; SHKLYAR, S.Ya., tekhn. red.

[Astronomical calendar: Yearbook. varying part, 1964]Astronomi-
cheskii kalendar',Ezhegodnik, peremennaia chast',1964.Red.koll.
P.I.Bakulin i dr. Moskva,Fizmatgiz,1963. 279 p. (Vse-
soiuznoe astronomogeodezicheskoe obshchestvo, no.67)
                                    (MIRA 17:1)

KUROCHKIN, N.Ye.

Supernova in IC 3112. Astron.tair. no.244:1 My '63.   (MIRA 17:2)

1. Gosudarstvennyy astronomicheskiy institut im. P.K.Shternberga.

KUROCHKIN, N.Ye.

New variable stars in the vicinity of NGC 6171. Per.zvezdy 14
no.1:15-21 Ja '62.   (MIRA 17:3)

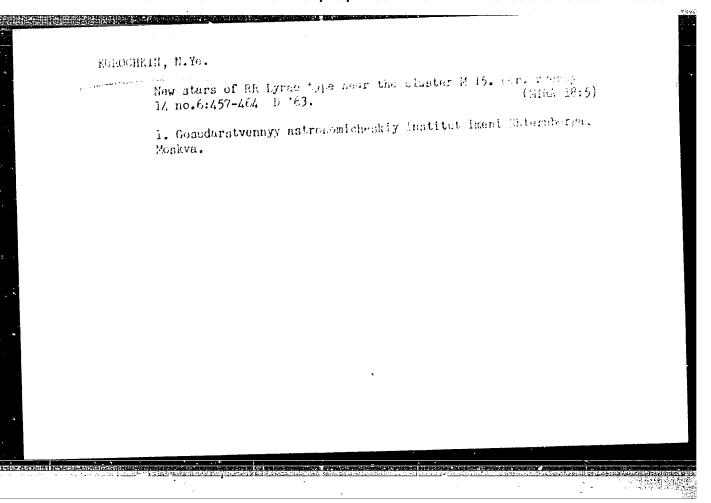1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shtern-
berga, Moskva.

KUROCHKIN, N.Ye.

Is the brightness of the object 3C-273 varying?   Astron. tsir.
no. 251:1-2 Jl '63.   (MIRA 17:5)

1. Gosudarstvennyy astronomicheskiy institut imeni Shternberga.

BAKULIN, P.I., otv. red.; DAGAYEV, M.M., red.;KULAGIN, S.G., red.;
        KUROCHKIN, N.Ye., red.; MASEVICH, A.G., red.; RAKHLIN,
        I.Ye., red.

        [Astronomical calendar; yearbook, variable part for 1965]
        Astronomicheskii kalendar'; ezhegodnik. Peremennaia chast'
        1965. Red. kollegiia: P.I.Bakulin i dr. Vypusk 68 p. Mo-
        skva, Nauka, 1964. 290 p.   (MIRA 17:10)

KUROCHKIN, N.Ye.

New stars of RR Lyrae type near the cluster M 15. ... (MIRA 18:5)
14 no.6:457-464 D '63.

1. Gosudarstvennyy astronomicheskiy institut imeni Shternberga.
Moskva.

BAKULIN, P.I., o... red.. CAGAYEV M.M.; ..., KULAGIN, S.G.,
red.. KUROCHKIN, N.Ye.; ..... HASEEVICH A G.; ...
RAKHLIN, I.Ye.; ...

[Astronomical calendar, year... V. Variat... part 1962]
Astronomicheskii kalendar... ... pr... ... Peremennaia
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Moskva, Nauka, 1965. ... ... (MIRA 9:1.)

KOROCHKIN, N. Ye.; KUKARKIN, B.V.

Class W Ursae Majoris-type binaries and some problems in the evolution of stars. Astron. zhur. 43 no. 1:83-88 J - F '66.
(MIRA 19:1)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K. Shtern-berga. Submitted April 30, 1965.

KUROCHKIN, O.

Build good roads to all state and collective farms. Avt.dor. 24
no.4:32 Ap '61.   (MIRA 14:5)

1. Instruktor Kirovskogo Rayonnogo komitet Kommunisticheskoy partii
Ukrainy.
                    (Ukraine—Road construction)

UR/

ACC NR: AM6026326   (A)   Monograph

Kurochkin, P. A., ed. (Professor, General of the Army)

Combined armed forces in attack; based on the experiences of the Great Patriotic War, 1941-1945 (Obshchevoyskovaya armiya v nastuplenii; po opytu Velikoy Otechestvennoy voyny 1941-1945 gg.) Moscow, Voyenizdat M-va obor. SSSR, 1966. 244 p. illus. (part col.), 6000 copies printed.

TOPIC TAGS: military science, conventional warfare, air and ground force, tactics, organization

PURPOSE AND COVERAGE: Soviet military experience in World War II is analyzed, with special attention paid to preparation, advance, and attack by the combined armed forces (armor, infantry, air support, and engineer corps). Main emphasis is placed upon maneuvers during the penetration of enemy defences, coordination between different units, and methods of command and control. The book is intended for the officers of the Soviet armed forces and for classroom use in Soviet military colleges.

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   preceeding the Great Patriotic War -- 11
Ch. 2.   Factors affecting the development of skills required for pre-
   paring and conducting offensive operations by combined armed forces
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   combined armed forces -- 88
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SUB CODE: 15/   SUBM DATE: 27Oct65/

Card   2/2

KUROCHKIN, Petr Dmitriyevich; SHUMSKAYA, L.G., red.izd-va;
EN'YAKOVA, G.M., tekhn. red.

[Blast furnace pig iron as foundry material] Chugun domen-
noi plavki kak liteinyi material. Moskva, Metallurgizdat,
1963. 110 p.   (MIRA 17:2)

MIKHALEV, I.P.; ZVOLINSKAYA, V.V.; KUROCHKIN, P.D.

Casting and stand testing of cerium cast iron crankshafts. Lit.
proizv. no.9:40-41 S '64.   (MIRA 18:10)

KUROCHKIN, P.D.; RYLOV, L.I.

      Concerning All-Union State Standard 1412-54 "Grey iron castings."
      Lit. proizv. no.4:42-44   Ap '64.
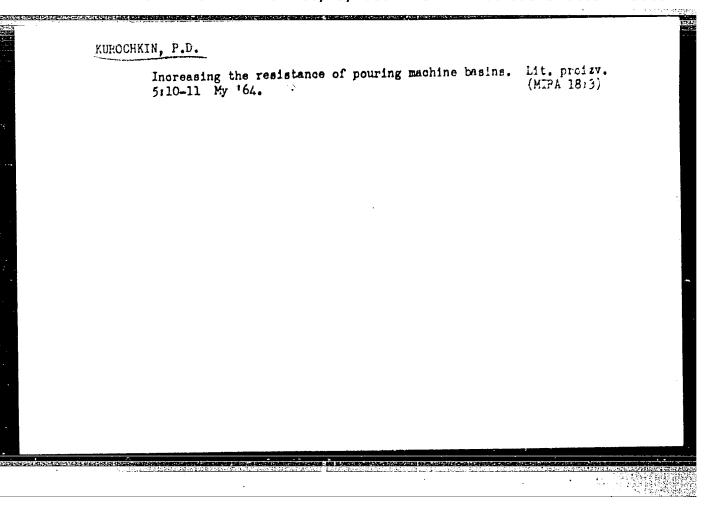
                                                      (MIRA 18:7)

KUROCHKIN, P.D.; RYLOV, L.I.

Use of inoculation to increase the density of thin-walled iron casting.
Lit.proizv. no.4:42-43 Ap '63.   (MIRA 16:4)
        (Iron founding)   (Cast-iron—Metallurgy)

KUROCHKIN, P.D.

Increasing the resistance of pouring machine basins. Lit. proizv.
5:10-11 My '64.   (MIPA 18:3)

MAZIN, B.S.; PETUKHOV, I.N.; KUROCHKIN, P.G.

Use of periclase-spinel bricks in the regenerator checkerwork
of open-hearth furnaces. Stal' 21 no.8:699-700 Ag '61.
(MIRA 14:9)

1. Beloretskiy metallurgicheskiy kombinat.
         (Open-hearth furnaces--Equipment and supplies)
                        (Firebrick)

TIMOFEYEV, N.N.; ANOKHINA, A.D.; KUROCHKIN, P.G.; SAVEL'YEV , A.I.

Unfired, reinforced magnesite-chromite products for the roof of open-hearth furnaces. Ogneupory 29 no.2:79-82 '64.   (MIRA 17:1)

1. Vsesoyuznyy institut ogneuporov (for Timofeyev, Anokhina). 2. Belo-retskiy metallurgicheskiy kombinat (for Kurochkin, Savel'yev).

ILESTROV, K.M.; KUROCHKIN, P.M., doktor voyennykh nauk, zasl.
      deyatel' nauk RSFSR general-leytenant voysk svyazi, red.;
      KANAYEVA, V.P., red.

      [Control and communications] Upravlenie i sviaz'. Moskva,
      Voenizdat, 1964.   130 p.   (MIRA 17:12)

KOLESHIK, I.L.,kand.sel'skokhozyaystvennykh nauk; KUROCHKIN, P.M.

Fall cultivation of soil in southern steppes of the Ukraine.
Zemledelie 8 no.6:87-88 Je'60.   (MIRA 13:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut oroshayemogo
zemledeliya.
                    (Ukraine--Tillage)

KOLESNIK, I. L., kand. sel'skokhozyaystvennykh nauk; KUROCHKIN, P. M.

Tillage system in the southern steppe of the Ukraine. Zemledelie
24 no.9:64-67 S '62.   (MIRA 15:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut oroshayemogo
zemledeliya.

(Ukraine—Tillage)

SHP..SHIN, P.N., inzh.

Effect of the exposure of butt diamonds on the mechanical drilling speed and the stability of the bit. Izv.vys.ucheb.zav.;gor.zhur. 7 no.6:59-63 '64. (MIRA 17:12)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni gornyy institut imeni G.V.Plekhanova.

KORNILOV, N.I.; KUROCHKIN, P.N.

Using low-quality diamonds in drill bits. Razved. i okh. near
30 no.9:23-25 S '64.
(MIRA 17:12)

1. Gosudarstvennyy geologicheskiy komitet SSSR (for Kornilov).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i
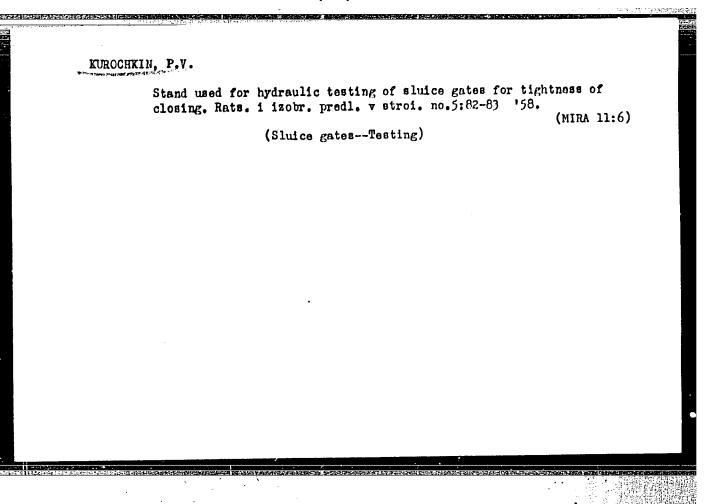tekhniki razvedki Gosudarstvennogo geologicheskogo komiteta
SSSR (for Kurochkin).

KUROCHKIN, P.N.

Anomalous lateral wear of a fine-diamond drilling tool and methods for its control. Razved. i okh. nedr 30 no.4:49-50 Ap '64.   (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki Gosudarstvennogo geologicheskogo komiteta SSSR.

KUROCHKIN, P.V.

Effect of gaiting warp tension on thread breakage and the physical
and mechanical properties of fabric. Izv.vys.ucheb. zav.; tekh.tekst.
prom. no.2:121-127 '58.   (MIRA 11:5)

1. Kostromskoy tekstil'nyy institut.
        (Weaving)

KUROCHKIN, P.V.

Stand used for hydraulic testing of sluice gates for tightness of closing. Rats. i izobr. predl. v stroi. no.5:82-83 '58.

(MIRA 11:6)

(Sluice gates--Testing)

1. HUROSKIN, G. Eng.

2. USSR (600)

4. Concrete Construction

7. Durability of concretes and grouts deposited by under-water concreting, Ser. Plot 13
    No. 3, 1953

9. **Monthly List** **of** **Russian** **Accessions**, Library of Congress, June_____1953, Unclassified.

KUROCHKIN, S. I.

PA 10/49T99

USSR/Petroleum -- Well Drilling   Aug 48
     Drills, Oil Well

"Magnetic Drilling Equipment," S. I. Kurochkin,
Factory imeni Vladimir Il'ich, 8½ pp

"Energet Byul" No 8

Detailed description of controller Type SB-47-1
manufactured by Plant imeni Vladimir Il'ich in
Moscow. Intended for regulating starting,
stopping and countercurrent braking of type
MAD-126-8 or MAD-128-8 petroleum rotary drilling
rigs. Gives complete circuit diagrams and
operating characteristics. Invites suggestions

                                    10/49T99

USSR/Petroleum -- Well Drilling (Contd) Aug 48

for improving controller, which should be sent
to P.O. Box 1362, Moscow, 54.

10/49T99

1. KUROCHKIN, S. I. : POKONOV, N. Z.

2. USSR (600)

4. Boring

7. Model SB-51-1 magnetic control station for drilling. Energ. biul. no. 7, 1952

9. Monthly List of Russian Accessions, Library of Congress, January   1953. Unclassified.

KUROCHKIN. S. N.

Technology

Under water concreting; vertical movable tube method, Moskva, Morskoy transport, 1951.

KUROCHKIN, S. N., Cand Tech Sci -- (diss) "Investigation of the Technology for Submerged Detonization of Harbor Hydrotechnical Installations by Means of a Vertically Interchangeable Tube." Len, 1956. 20 pp with graphs (USSR, Len Inst for Eng of Water Transport),100 copies. (KL, 7-58, 110)

- 23 -

GORYUNOV, B.F., kandidat tekhnicheskikh nauk; GUDANETS, N.A., kandidat
tekhnicheskikh nauk; ZLATOVERKHOVNIKOV, L.F., kandidat tekhnicheskikh
nauk; KAGAN, Ya.Kh., kandidat tekhnicheskikh nauk; KRIVOV, A.K.,
inzhener; KUROCHKIN, S.N., inzhener; LYAKHNITSKIY, V.Ye., doktor
tekhnicheskikh nauk, professor; NOVIKOV, A.F., kandidat tekhnicheskikh
nauk; ROMASHOV, D.G., inzhener; SHTENTSEL', V.K., kandidat tekhni-
cheskikh nauk; KUZ'MIN, T.P., redaktor; ZAYTSEV, N.N., redaktor;
NELIDOVA, N.S., redaktor izdatel'stva; TIKHONOVA, Ye.A., tekhnicheskiy
redaktor

[Port hydrotechnical installations: construction and disign] Portovye
gidrotekhnicheskie sooruzheniia; konstruirovanie i raschet. Moskva,
Izd-vo "Morskoi transport," 1956. 537 p.   (MIRA 9:11)
            (Harbors)

GORYUNOV, Boris Fedorovich, kandidat tekhnicheskikh nauk; KUROCHKIN, S.N., spetsredaktor; SANDLER, N.V., redaktor izdatel'stva; KCTLYAKOVA, 0.I., tekhnicheskiy redaktor

[Mooring structures of precast concrete elements] Prichal'nye sooru-zheniia iz sbornykh zhelezobetonnykh elementov. Leningrad, Izd-vo "Morskoi transport," 1957. 224 p. (MLRA 10:9)
    (Docks)

KUROCHKIN, S.N., kand.tekhn.nauk.

Data on industrial investigations on processes of placing
concrete under water by means of VPT tremies. Trudy TSNIIMF
12:10-39 '57.   (MIRA 11:2)
          (Hydraulic engineering--Equipment and supplies)
          (Concrete construction)

GORYUNOV, B.F., kand.tekhn.nauk; KUROCHKIN, S.N., kand.tekhn.nauk

Ways of reducing costs and increasing the durability of
pier structures in harbors. Trudy TSNIIMF no.19:3-37
'58.   (MIRA 13:1)
    (Piers--Cost of construction) (Building materials)

KUROCHKIN, Sergey Nikolayevich; LYAM, L.M., red.; LAVRENOVA, N.B., tekhn.
rod.

[Use of underwater concreting in harbor hydraulic engineering] Pri-
menenie podvodnogo betonirovaniia v portovom gidrotekhnicheskom
stroitel'stve. Moskva, Izd-vo "Morskoi transport," 1961. 48 p.
(MIRA 14:8)
(Concrete construction) (Hydraulic engineering) (Harbors)

KUROCHKIN, S.N., kand.tekhn.nauk; DOLINSKIY, A.A.

Wharf structures on cylindrical supports calculated for strength and
deformation under the effect of horizontal stresses. Trudy TSNIIMF
7 no. 32:3-16 '61.   (MIRA 14:5)
            (Wharves)   (Strains and stresses)

DOLINSKIY, A.A., kand. tekhn. nauk; KUROCHKIN, S.N., kand. tekhn. nauk;
    SAAR, F.V., inzh.

    Study of a bulwark of prestressed shells. Transp. stroi. 15
    no.3:46-48 Mr '65.   (MIRA 18:11)

KOMAR, S.S., BRUCK, V.?., ALEXANDROV, ..., VASILIEV, ...
ZELDOVICH M.F.   (U.S.S.R.)

Measurements of the instantaneous values of the
dynamic characteristics in proton synchrotrons

CERN-Symposium on High Energy Accelerators and Pion
Physics

Geneva 11-23 June 56
In French #5

"On Measuring the Instantaneous Intensity Values Upon Vary-
ing the Magnetic Fields," by S. M. Rubchinskiy, M. P. Zel'do-
vich, and S. S. Kurochkin, Radiotekhnika i Elektronika, No 7,
Jul 56, pp 1001-1013

A method of measuring the instantaneous value of intensity on vary-
ing the magnetic field was investigated and its results described (article
is dated 25 June 1956).

The method of measuring was based on the phenomenon of nuclear mag-
netic resonance, and a device was developed suitable for the 10 Bev syn-
chrophasotron at the Electrophysics Laboratory of the Academy of Sciences
USSR.

KUROCHKIN, S.S., RUBCHINSKIY, S.M., VASIL'YEV, A.A., SELDOVICH, M.P., KUZMIN, V. F.

"Measurement of Instantaneous Values of Variable Magnitude in
Proton Synchrotron Technique," paper presented at CERN Symposium,
1956, appearing in Nuclear Instruments, No. 1, pp. 21-30, 1957

AUTHOR: KUROCHKIN,S.S.   PA - 2802
TITLE: The Effect of Dynamic Distortions of Nuclear Magnetic Resonance
Signals in Magnetic Measurements. (Dinamicheskiye iskazheniyak
signalov yadernogo magnitnogo rezonansa i uchet ikh pri magnitnykh
izmereniyakh, Russian)

PERIODICAL: Zhurnal Tekhn.Fiz. 1957, Vol 27, Nr 4, pp 748-752 (U.S.S.R.)
Received: 5 / 1957   Reviewed: 7 / 1957

ABSTRACT: This work was carried out in 1952. Numerical results for wide ranges
of modification of the parameter:

$$P = \sqrt{\gamma \frac{dH}{dt}}\ T_2$$

were obtained (γ - giromagnetic relation of the sample nuclei,
$\frac{dH}{dt}$ - modification velocity of the magnetic field, T_2 - the time
of the cross relaxation). These computations were carried out on
the basis of the solution given in the work by JACOBSON-WANGSNESS
(Phys.Rev. 73, 942, 1948).

In the case of the practical utilization of the phenomenon of
magnetic resonance in the nucleus it is useful to introduce para-
meters of the dynamic distortions of resonance signals. The most

Card 1/2

PA - 2802

The Effect of Dynamic Distortions of Nuclear Magnetic Resonance
Signals in Magnetic Measurements.

important of them are: The dynamic shifting of the magnetic reso-
nance signal in the nucleus, the relative propagation of the reso-
nance signal, the relative reduction of the signal amplitude.
(5 Illustrations and 9 Citations from Slav Publications).

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED: 5.10.1957
AVAILABLE: Library of Congress

Card 2/2

SOV-120-58-1-11/43

AUTHORS: Kurochkin, S. S. and Zel'dovich, M. P.

TITLE: Application of Nuclear Resonance to Magnetic Measurements
         on a Synchrophasotron (Primeneniya yadernogo rezonansa pri
         magnitnykh izmereniyakh na sinkhrofazotrone)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 1, pp 50-53
         (USSR)

ABSTRACT: An account is given of the application of nuclear magnetic
         resonance to magnetic measurements on an experimental 180 MeV
         synchrophasotron. In this experimental synchrophasotron the
         magnetic field varied between 400 and 10 500 oersted with a
         speed of 20×10^5 oersted per sec $\pm 3.5\%$. Variations in the
         speed of the change in the magnetic field were up to 20% and
         the non-uniformity of the field was 3.6×10^{-5}cm^{-1}. A num-
         ber of circuits were developed for the recording of the
         nuclear magnetic resonance signal (Fig.1). The first two
         circuits in Fig.1 are used in the measurement of fields
         between 300 and 3000 oersted. The second of these circuits
         makes possible a remote control of the sensitivity. The
         third circuit in Fig.1 was used in the measurements of fields
         greater than 3000 oersted. The specimen used was water with
         1% admixture of $MnCl_2$ or $Fe(No_3)_3$. A general picture of the
Card 1/3 apparatus is shown in Fig.2. The stability of the resonance

SOV-120-58-1-11/43

Application of Nuclear Resonance to Magnetic Measurements on a Synchrophasotron.

signals at 400 oersted was checked by having two identical setups. Over many days the difference between the two was never more than $\pm 0.05\%$ at 400 oersted and correspondingly better for higher fields. The apparatus was used on the synchrophasotron for the following purposes: (1) the determination of the law connecting the intensity of the magnetic field and the frequency of the accelerating voltage (Ref.1) and the verification of the stability of this relationship; (2) calibration in absolute units of the apparatus producing the magnetic field; (3) verification of the stability of this apparatus; (4) measurement of radial and asimuthal nonuniformity of the magnetic field; (5) measurement of the coefficient $n = rdH/Hdr$ in different sections of the electromagnet; (6) studies of the stability of the relation between instantaneous values of the field in the different parts in the gap of the electromagnet; (7) verification of the stability of the relation between the fringe field and

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SOV-120-58-1-11/43

Application of Nuclear Resonance to Magnetic Measurements on a
Synchrophasotron.

the field in the gap. The following persons collaborated:
S. M. Rubchinskiy, A. M. Golubev and N. V. Kovalev . There
are 5 figures, 4 tables and 4 references, one of which is
English and the rest Soviet.

SUBMITTED: July 1, 1957.

1. Synchrophasetrons--Magnetic properties   2. Nuclear magnetic
resonance--Applications   3. Magnetic fields--Measurement

Card 3/3

SOV-120-58-1-12/43

AUTHOR: Kurochkin, S. S.

TITLE: Magnetic Measurements on a Synchrophasotron using
           Permalloy Probes (Magnitnyye izmereniya s permalloyevymi
           datchikami na sinkhrofazotrone)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 1, pp 53-55
           (USSR)

ABSTRACT: The magnetic field in the gap of the electromagnet of
           a 180 MeV synchrophasotron was measured, using a coil with
           a permalloy core in the form of a thin wire. The purpose
           of the experiment was to determine the position and form
           of the magnetic median surface. This surface is character-
           ised by the fact that all the z components of the field
           (Fig.1) measured at the same distances from the surface
           are equal. At the same time the r component of the mag-
           netic field is zero on this surface. This latter criterion
           is the more sensitive and was used in the present work. To
           determine the position and form of the median magnetic sur-
           face the permalloy probe was placed roughly in the geometric
           median surface and perpendicularly to the lines of force of

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SOV-120-58-1-12/43

Magnetic Measurements on a Synchrophasotron using Permalloy Probes.

the field and was then accurately moved along the vertical. The probe was placed in the solenoid which produced a sinusoidal modulation of the r component of the magnetic field. One of the possible methods of measurement is illustrated in Fig.1. In this figure the following notation is used: (1) electromagnet, (2) permalloy wire, (3) measuring coil, (4) modulating coil, (5) audio frequency oscillator, (6) an oscilloscope and (7) amplifier. In the absence of the r component of the magnetic field (on the median surface or in the total absence of the magnetic field) the pulse from the permalloy probe was noted. On the appearance of the r component, i.e., when the probe was moved relative to the median plane, the oscillogram shifted. If the position of the magnetic median surface changed with the magnetic field, its instantaneous position could be found by means of a special oscillograph. These permalloy probes were used to study the relationship between the field in the gap of the electromagnet and the leakage field outside the gap. Details of the way in which these probes were prepared are given. A. A. Vasil'yev, V. A. Skuratov and A. M. Golubev are thanked

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SOV-120-58-1-12/43

Magnetic Measurements on a Synchrophasotron using Permalloy Probes.

  for their cooperation. There are 2 figures and 4 references,
  3 of which are Soviet and 1 English.

SUBMITTED: July 1, 1957.

   1. Synchrophasetrons--Magnetic properties   2. Magnetic fields--Measurement
   3. Magnets--Applications

Card 3/3

109-3-2-6/26

AUTHOR: Kurochkin, S.S.

TITLE: Theory of the Spin Oscillator (K teorii spinovogo generatora)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol.III, No.2,
pp. 198 - 201 (USSR).

ABSTRACT: A frequency-modulated oscillator, based on a system of
nuclear spins, situated in two perpendicular magnetic fields,
was devised by Bloch (Ref.2). The field has a slowly changing
component H_z and a high-frequency component $H_x = 2H_1 \cos \omega t$,

where:
$$\omega = \gamma H_z \qquad\qquad (1)$$

and γ is the gyro-magnetic ratio of the nuclei in the sample.
The function of the system is described by Eqs(2) where
M_x, M_y and M_z are the components of the overall magnetic
moment of the nuclei of the sample; H_x, H_y, H_z are the
magnetic field components; T_1 is the longitudinal relaxation
time; T_2 is the transverse relaxation time and M_0 is the
equilibrium value of M_z. Two practical oscillator circuits
are possible. In one of these (Fig.1), the signal of nuclear

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109-3-2-6/26

Theory of the Spin Oscillator

induction in the receiving coil L_1 is amplified and, by means of a perpendicular coil L_2, produces a high-frequency field H_x. The second oscillator (Fig.2) is based on a bridge circuit. The spin system (sample) is placed in one of the branches of the bridge, which becomes unbalanced at the instant of the appearance of a nuclear resonance. If H_z and H_z are slowly changing quantities and if $H_y = 0$, Eqs.(2) lead to Eq(4). For the circuit of Fig.1, Eq.(4) can be transformed into Eq.(9), where V_c is the voltage across the receiving coil, as expressed by Eq.(5), and H is the number of turns in the coil, while A is the area of its transverse cross-section. From Eq.(9), it is found that the conditions of oscillations can be expressed by Eqs.(10) and the oscillation frequency by:

$$\omega^2 = \gamma^2 H_z^2 + \frac{1}{T_2^2} - \gamma \frac{H H_z}{T_2} \qquad (11) .$$

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From Eq.(9), it is also possible to determine the steady state

Theory of the Spin Oscillator   109-3-2-6/26

   amplitude V_{co} of the oscillations; for this purpose, M_z , as expressed by Eq.(12), is substituted into Eq.(9), which is then solved by the usual methods. The steady-state amplitude is then expressed by Eq.(14). It is pointed out that the above equations can be modified to describe an electron spin oscillator. There are 3 references, 2 of which are English and 1 Russian.

SUBMITTED: October 4, 1956.
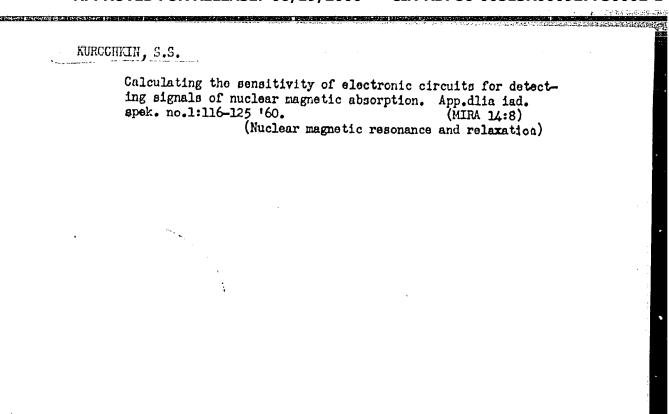
AVAILABLE: Library of Congress

Card 3/3   1. Frequency modulation-Oscillator circuits-Theoretical analysis

KUROCHKIN, S.S., kand. tekhn. nauk, red.; MATVEYEV, V.V., kand. fiz.-mat. nauk, red.; ZHERNOV, V.S., red.; KUZNETSOV, K.F., red.; LAZAREV, A.F., red.; MAMIKONYAN, S.V., glav. red.; NEMIROVSKIY, B.V., red.; POLIKAR- POV, V.I., red.; KHAZANOV, B.I., red.; EROLIS, K.E., zam. glav. red.; SHIRSHOV, D.P., red.; ANDREYENKO, Z.D., red.; VLASOVA, N.A., tekhn. red.

[Apparatus for nuclear spectrometry; collection of scientific and technical articles] Apparatura dlia iadernoi spektrometrii; nauchno-tekhnicheskii sbornik. Moskva, Gos. izd-vo lit-ry v oblasti atomnoi nauki i tekhniki. No.1. 1960. 131 p.   (MIRA 14:7)
     (Spectrometry)   (Nuclear research)

KURCCHKIN, S.S.

Calculating the sensitivity of electronic circuits for detecting signals of nuclear magnetic absorption. App.dlia iad. spek. no.1:116-125 '60.   (MIRA 14:8)
                    (Nuclear magnetic resonance and relaxation)

KUZNETSOV, K.F.; BOGOLYUBOV, A.S.; KUROCHKIN, S.S.

    Transistorized logic elements for electronic apparatus. Nauch.-tekh.
sbor.Gos.izd-va lit. v obl. atom. nauki i tekh. no.4:7-15 '62.

    Transistorized matching and shaping elements for electronic apparatus.
16-24   (MIRA 16:10)

BELOUS, A.L.; KUZNETSOV, K.F.; KUROCHKIN, S.S.; PASECHNIKOVA, I.P.;
PETROVA, L.F.

Characteristics of a set of transistorized elements of a magnetic
memory unit. Nauch.-tekh.sbor.Gos.izd-va lit. v obl. atom. nauki i
tekh. no.4:25-43 '62.   (MIRA 16:10)

KUROCHKIN, S.S.; MAMIKONYAN, S.V.; PAKHOMOVA, N.B.; SALOV, S.P.;
     TUCHINA, A.S.

New analyzer. Nauch.-tekh.sbor.Gos.izd-va lit. v obl. atom. nauki
i tekh. no.4:61-71 '62.   (MIRA 16:10)

PAKHOMOVA, N.B.; ARSAYEV, M.I.; IVANOV, V.F.; KUROCHKIN, S.S.;
    MAMIKONYAN, S.V.

   Apparatus for detecting coincidences of relativistic charged particles.
   Nauch.-tekh.sbor.Gos.izd-va lit. v obl. atom. nauki i tekh. no.4:
   89-98 '62.   (MIRA 16:10)

S/120/62/000/004/024/047
E039/E420

AUTHORS: Kuz'min, A.A., Kurochkin, S.S., Kiselev, Yu.S.,
             Mamayev, V.A., Pligin, Yu.S., Chernov, P.S.

TITLE: The system for determining the position of the proton
             beam

PERIODICAL: Pribory i tekhnika ·eksperimenta, no.4, 1962, 126-131

TEXT: An electrode system is described for determining the
position of the proton beam in the acceleration chamber.
It consists essentially of two pairs of insulated metallic plates
fitted into the straight sections of the vacuum vessel, each of
which is part of an elliptical cylinder with a cross-section equal
to the cross-section of the main part of the vacuum chamber.
By examining the signal induced by the beam in opposite pairs.of
electrodes the radial and vertical displacement of the beam can
be determined.   The magnitude of the induced signal depends on
the displacement of the beam relative to the axis of symmetry of
the electrodes, the beam intensity and the capacity of the
electrodes.   Calculations on the characteristics of the electrode
system are made and verified experimentally.   The associated
Card 1/2

The system for determining ...

$S/120/62/000/004/024/047$
$E039/E420$

electronics is described and its characteristics are such that the coefficient converting displacement of the beam in vertical and radial directions into volts is $S = 1$ V/cm. In the frequency range 0 to 5 Kc/s, the nonuniformity in this coefficient is not more than 3 db. Accuracy of measurement of beam position is $\pm$ 5%, $\pm$ 1.5 mm, relative to the half-width or half-height of the vacuum chamber for beam intensities of 2×10^8 to 2×10^{10} particles. There are 30 pairs of electrodes situated in the 15 straight sections. A typical oscillogram showed beam displacements up to 1 cm. Transverse oscillations of the beam are also measured. There are 6 figures.

ASSOCIATIONS: Institut teoreticheskoy i eksperimental'noy fiziki
GKAE (Institute of Theoretical and Experimental
Physics GKAE) Radiotekhnicheskiy institut GKAE
(Radio-Technical Institute GKAE)

SUBMITTED: March 16, 1962

Card 2/2

BELOV, A.F.; BELOUS, A.L.; KUZNETSOV, K.F.; KUROCHKIN, S.S.;
    SALICHKO, V.N.; MELESHKO, V.K., red.; POPOVA, S.M.,
    tekhn. red.

[Digital system (AI-2048) for storing and processing
information] TSifrovaia sistema nakopleniia i obrabotki
informatsii (AI-2048). Moskva, Gosatomizdat, 1963. 145 p.
                                    (MIRA 16:9)
        (Information storage and retrieval systems)

ACCESSION NR: AR4023766   S/0274/64/000/001/A082/A082

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 1A539

AUTHORS: Kurochkin, S. S.; Krasheninnikov, I. S.; Milov, Yu. G.

TITLE: Analyzers with many pickups

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radio-elektronike. T. 2. Ch. 2. M., Gosatomizdat, 1963, 31-46

TOPIC TAGS: pulse analyzer, multichannel analyzer, nuclear particle angular distribution, statistical analysis, pulse counting rate, analyzer dead time

TRANSLATION: In a large number of experiments many pickups are used simultaneously, and if their signals are recorded channel by channel, the apparatus turns out to be quite complicated. A much more compact installation consists of a recording part of a multichannel

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ACCESSION NR: AR4023766

analyzer used in conjunction with an input coding unit, which connects
each pickup with a definite address of the recording part. The
transmitter signal is first distinguished from the background by its
level, sign, or some other parameter. Such systems can be used, for
example, in a statistical analysis of angular distribution of nuclear
particles. Coding devices of the sequential and parallel types are
considered, along with the problems involved in the construction of
systems consisting of many pickups with analyzers. Two types of
analyzers are described and circuits are presented for their princi-
pal units. It is shown that owing to the considerable dead time
(20--30 microseconds) the efficiency of such systems is inadequate
in the case of large loads, but when the pulse counting rate is less
than one pulse per second, this shortcoming can be neglected. Bibli-
ography, 4 titles. I. B.

DATE ACQ: 03Mar64   SUB CODE: PH, GE   ENCL: 00

Card 2/2

ACCESSION NR: AR4023770 . S/0274/64/000/001/A082/A083

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 1A543

AUTHORS: Kurochkin, S. S.; Krasheninnikov, I. S.; Kuznetsov, K. F.

TITLE: Multichannel analyzer for large scale production

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. ra-
dioelektronike. T. 2. Ch. 2. M., Gosatomizdat, 1963, 53-61

TOPIC TAGS: multichannel analyzer, pulse code converter, interval
code converter, analyzer storage unit, analyzer data processing
unit, analog analyzer output, digital analog output, mass produc-
tion analyzer

TRANSLATION: The development and technical data on four types of
analyzers and their transmittal to the plants are reported. The
greater part of the input and output units are common to analyzers

Card   1/3

ACCESSION NR: AR4023770

of any one type. The differences between analyzers are determined essentially by the parameters of their storage and information pro- cessing units. The input units of the analyzers convert either pulse amplitudes or time intervals between pulses into a digital code. Standard pulses corresponding to the appearance of a signal in a definite pickup can also be converted. A summary table of the technical specifications of the input units is presented: the largest number of converter channels is 512, the pulse repetition frequency reaches 4 Mc, and the smallest channel width of the time converter is 1 nsec.. The output units of the analyzers are designed to provide either analog (on an oscilloscope or automatic recorder) or digital signals (on a dekatron counter, punched tape, or number- printing mechanism). Depending on the number of channels, the ana- lyzers come in three groups: AI-50, AI-100, and AI-2048. The latter group of analyzers has 2048 channels for 18 binary digits each. Two-dimensional and multi-dimensional analyzers were also developed. Work is being done on transistorization of the analyzer circuit

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ACCESSION NR: AR4023770

blocks. Many of the most important units are constructed in minia-
turized-block form. To ensure efficient production of the analyzers,
the technological tolerances of their parameters are specified.
Bibliography, 4 titles. I. B.

DATE ACQ: 03Mar64   SUB CODE: EE, SD

                                                          ENCL: 00

Card   3/3

ACCESSION NR: AR4020790   S/0271/64/000/002/B062/B063

AUTHORS: Krashenninikov, I. S.; Kurochkin, S. S.; Shalgin, Yu. M.; Sterligov, A. A.

SOURCE: RZh. Avtomat., telemekh. i vy'chislitel. tekhnika, Abs. 2B389

TITLE: Centralized control system for statistical parameters

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radioelektronike. T. 2. Ch. 2. M., Gosatomizdat, 1963, 123-134

TOPIC TAGS: discrete control system, centralized control system, data control, magnetic drum memory

TRANSLATION: A discrete control system is examined for gathering data on the state of many objects of the same type. The control parameter is the amplitude of the pulses from up to several thousand pick-ups. The system finds and fixes the number of the pick-up in which the signal has increased by a given relative value. Simultaneously 256 pick-ups are scanned in parallel-series search mode. During each scan of a pick-up pulses from the pick-up pass through the input to the magnetic drum memory. The drum has a capacity of 50 thousand bits. The

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ACCESSION NR: AR4020790

exposure time for each pick-up is constant, and therefore the memory records a
number proportional to the voltage amplitude. During successive scanning of a
pick-up the new value is compared with the mean value of the series of preceding
measurements and if it does not exceed this value the number is recorded in the
place of the oldest number in the preceding series. The numbers are compared in
the arithmetic unit, which averages the preceding values beforehand and computes
the threshold numbers. In case the threshold is exceeded, the number of the
sensor is displayed on a PBX-type board using stepping selectors, relays, and
neon lamps. The circuit of the entire system and one of its operating programs
are discussed in detail. Orig. art. has 7 figs.

DATE ACQ: 03Mar64   SUB CODE: SD, CP   ENCL: 00

Card 2/2

KUROCHKIN, S.S.

Multidimensional analyzers. Mnogokan. izm. sist. v iad. fiz. no.5:
3-28 '63.

Reliability of multichannel control.   Ibid.:29-37

Microprogram control in measuring systems.   Ibid.:128-142

Transistorized information output device for operation with
punched tape.   Ibid.:165-170   (MIRA 16:12)

KUROCHKIN, S.S.; BELOV, A.F.; BELOUS, A.L.; SALICHKO, V.N.; ABUZINA, I.N.;
KURKOV, Ye.V.; KUZNETSOV, K.F.; STERLIGOV, D.A.

Principle transistorized components of multichannel measuring
systems. Mnogokan. izm. sist. v iad. fiz. no.5:87-116 '63.
(MIRA 16:12)

ACCESSION NR: AT3012187   S/2963/63/000/005/0117/0127

AUTHOR: Kurochkin, S. S.; Belous, A. L.; Kuznetsov, K. F.; Kurkov,
Ye. V.

TITLE: Sectionalized variant of magnetic operating memory for 2048
numbers

SOURCE: Mnogokanal'ny*ye izmeritel'ny*ye sistemy* v yadernoy fizike.
Nauchno-tekhnicheskiy sbornik. Moscow, no. 5, 1963, 117-127

TOPIC TAGS: memory, magnetic memory, operative memory, sectional-
ized memory, memory cube, address selection unit, transistorized
current generator

ABSTRACT: The structure and test results of a memory unit consist-
ing of standard elements are considered from the point of view of
operation of the magnetic memory as a unit and the performance of
the standard elements used in the memory. The design is sectional-

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ized so that the memory consists of 8 memory cubes each for 256
numbers, an address selection unit, a unit for reading and writing
the number codes, and transistorized current generators for reading
and writing. The operation of the memory and the test results
are described. Although this memory is not the most economic from
the point of view of equipment utilization, its advantage is that
it can operate with low-power transistorized current generators.
The reading system ensures high signal to noise ratio and some of
its features may be useful in the construction of large size mem-
ories. Orig. art. has: 9 figures.

ASSOCIATION: None

SUBMITTED: 00   DATE ACQ: 16Oct63   ENCL: 01

SUB CODE: NS; SD   NO REF SOV: 003   OTHER: 000

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ACCESSION NR: AT3012188   S/2963/63/000/005/0143/0150

AUTHORS: Kurochkin, S. S.; Belov, A. F.

TITLE: Programming control unit using ferrites with rectangular
hysteresis loop

SOURCE: Mnogokanal'ny*ye izmeritel'ny*ye sistemy* v yadernoy fizike.
Nauchno-tekhnicheskiy sbornik. Moscow, no. 5, 1963, 143-150

TOPIC TAGS: control unit, ferrite core, rectangular hysteresis fer-
rite, command pulse, code pulse, conditional transfer, unconditional
transfer

ABSTRACT: A control unit has been developed, capable of issuing
up to 256 standard command and code pulses over 50 lines in an ar-
bitrary time sequence determined by the linkage of the wires with
the matrix. The programming matrix is interchangeable and the se-
quence of pulses in all 50 lines can be arbitrarily modified by

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changing the threading of the lines.   The time intervals between
pulses can be equal to the repetition period of the timing pulses
or be multiples of this period.   Cycles of control pulses can be
realized by using conditional and unconditional transfer commands.
The control system operates reliably at timing frequencies up to
100 cps.   Although the apparatus is inferior in operating speed to
diode-transformer variants, it consumes less diode per microcommand.
"In conclusion the authors are grateful to A. Voyevodov who partici-
pated in the work."   Orig. art. has: 6 figures.

ASSOCIATION: None

SUBMITTED: 00   DATE ACQ: 16Oct63   ENCL: 02

SUB CODE: NS, SD   NO REF SOV: 006   OTHER: 000

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AM4008910   BOOK EXPLOITATION   S/

Belov, A. F.; Belous, A. L.; Kuznetsov, K. F.; Kurochkin, S. S.;
  Salichko, V. N.

The AI-2048 digital storage system and information processing
(Tsifrovaya sistema nakopleniya i obrabotki informatsii /AI-2048/)
Moscow, Gosatomizdat, 63. 0145 p. illus., biblio. Errata slip
inserted. 5,100 copies printed.

TOPIC TAGS: multichannel digital system, multichannel digital
instrument, amplitude coding, duration coding, ferrite memory,
rectangular hysteresis loop, arithmetic unit, program unit, input
unit, readout unit, statistical distribution instrument

PURPOSE AND COVERAGE: The book is devoted to the AI-2048 multi-
channel digital system, which is used for measurement and data
reduction in nuclear physics. The system comprises specialized
input units (pulse height into digital code convertor, time inter-
val into digital code convertor, coding units), a ferrite-core
rectangular hysteresis loop memory for 2048 eighteen-digit numbers
designed on the coinciding half-current principle, an arithmetic

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